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ABSTRACT

To determine why some farmers drop out of the Wisconsin Young Farmer Program while others continue to enroll and to investigate strengths and weaknesses of the program, questionnaires were mailed to a random sample of 500 students, who were divided into broad categories of dropouts and re-enrollees. Usable returns from 41 percent of the dropouts and 79 percent of the re-enrollees revealed that dropouts were generally older, had considerably more farming experience, owned more of the land they operated, had more net worth, and had slightly more overall education than the re-enrollees. The dropouts also had a tendency to rate their instructor's teaching ability slightly lower, believed the major objective of the program was to acquire information about their farming operation rather than develop problem solving ability, and felt that the program was less relevant to their needs than did the re-enrollees. Dropouts tended to leave the program for purely personal reasons, such as being too involved with civic, religious, social, and farm organizations and/or family obligations. (SB)

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FACTORS INFLUENCING FARMERS TO STAY IN OR DROP OUT
OF THE YOUNG FARMER PROGRAM IN WISCONSIN

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Why do some farmers enrolled in the Young Farmer Program conducted by the Wisconsin Vocational, Technical and Adult Education system stay in the program while others drop out? What are the strengths and weaknesses of the program?

To answer these and other related questions, the University of Wisconsin-Madison, Department of Agricultural and Extension Education, in cooperation with the Wisconsin Board of Vocational, Technical and Adult Education and local Wisconsin VTAE districts, recently conducted an indepth study of the Young Farmer Program.

INTRODUCTION

Agricultural Education programs on the post-secondary level in Wisconsin have changed significantly since the early 1960's. This has been due largely to landmark national and state legislation changing the administration of these programs. Initial impetus for the change came with a study

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commission appointed by President John F. Kennedy in 1961. A major result of this study was the passage of the 1963 Vocational Education Act, subsequently strengthened by the 1968 Amendments to this Act. Among the provisions of the Act and its amendments, was the authorization for states to develop and conduct new post-secondary programs in various disciplines including agriculture.

In Wisconsin, the entire concept of post-secondary vocational education was changed with the passage in 1965 of legislation (Chapter 292 of the Wisconsin Statutes) dividing the entire geographical area of the state into eighteen separate VTAE districts effective no later than July 1, 1970.

Chapter 292 had a major impact on the total agricultural education program in the state. One direct result was that the programs on the high school level were separated from those existing on the post-secondary level. Prior to this act, most post-secondary agricultural programs, commonly called "Young and Adult Farmer Classes," were usually the responsibility of the high school vocational agriculture instructors around the state. At their option, the high school vo-ag instructors supplemented their high school day programs with weekly evening classes for Young and/or Adult Farmers in their area during the winter months.

After July 1, 1967, the administration for these programs passed to the local VTAE districts as they were organized. The administration for the secondary school agriculture programs was changed to the Wisconsin Department of Public Instruction.

In 1967, the State Board of Vocational, Technical and Adult Education divided the Young and Adult Farmer Program into two groups.¹ Young Farmers are taught by full-time instructors; whereas, Adult Farmers are taught by part-time instructors. Both are employed by the local VTAE districts.

Young Farmers receive instruction through formal classroom and individual on-farm instruction over a continuous five-year period. The curriculum encompasses all areas of production agriculture specifically geared to this group and is called an Integrated Course of Study.

STATEMENT OF THE PROBLEM

Judging by the rapid and steady rise of enrollments, the Young Farmer Program has been successful. However, one "nagging" concern has been the relatively high attrition or dropout rate of those enrolled from one year to another. Of the initial class enrolling in 1967, only 56.7 percent re-enrolled or continued the program in 1968. Similarly, only 43.3 percent of the 1967 "class" re-enrolled in 1969. Further investigation of the enrollment data confirmed a similar trend for subsequent years.

The problem, obviously, was to find out why such a high percentage of the initial enrollees dropped out before they completed the five-year program. Conversely, VTAE instructors

¹Young Farmer Programs are designed for those becoming established in farming while Adult Farmer Programs are designed for those individuals already fully established in farming.

and administrators wanted to find out what was "good" about the program because many of those who enrolled initially did complete the five-year course of study.

OBJECTIVES OF THE STUDY

The major purpose was to determine why some Young Farmers continue to enroll in the five-year instructional program while others dropped out. The specific objectives were to compare those continuing to those dropping out in terms of:

- A. Personal characteristics
 - 1. Age
 - 2. Educational background
 - 3. Farming experience
 - 4. Farm ownership versus non-ownership
 - 5. Farm size
 - 6. Major farm enterprises
 - 7. Net worth
- B. Satisfaction with instructional program
 - 1. Classroom phase
 - a. Facilities
 - b. Location²
 - c. Time, frequency and duration
 - 2. On-farm instruction phase
 - a. Frequency and duration of farm visits
 - b. Number of hours of farm instruction
 - c. Arrangements for farm calls (when scheduled and understanding and identifying purpose)

²Where classes are held; i.e., vocational schools, high schools, town halls.

- d. Relative importance (on-farm versus classroom instruction)
3. Instructor's teaching ability (technical know-how, organization ability, teaching methods used, balance between theory and practice and general impressions)
4. Content areas which should be emphasized (degree of)
5. Relevance of program to student's needs
6. Reasons for enrolling and perception of program objectives after enrolling
7. Reasons for dropping out of program

PROCEDURES USED

The 2,450 students enrolled in the Young Farmer Program for at least one year since the program's inception in 1967 served as the population base for this study. They were divided into two broad categories -- dropouts³ and re-enrollees. Approximately 20 percent or 500 (250 in each category) were randomly selected to participate in the study. This random sample was selected proportionally from the 14 VTAE districts having a Young Farmer Program at the time of the study.⁴

A mail questionnaire was then prepared and pre-tested in one VTAE district to eliminate any possible errors in question design which might be misinterpreted. Farmers selected to participate in the study were not used in the pre-test as they

³Enrolled for at least one year but not enrolled during 1971-72 school year.

⁴A proportional sample was drawn to allow each district to contribute to the sample in proportion to the number of students it has had enrolled or "dropped out" as compared with the number of enrollees and dropouts in the state. The number in the sample per district ranged from three to sixty-two.

might be biased if asked to fill out the questionnaire for a second time.

After a few minor modifications to the questionnaire following the pre-test were made, the questionnaires were distributed to the persons selected to participate in the study in the Spring of 1972.⁵

Unfortunately, 74 of the 500 persons in the sample received the "wrong" questionnaire⁶ due to errors found in the original enrollment list of the 1967 students. However, 41 percent of the properly classified "dropouts" and 79 percent of the properly classified continuing students returned usable questionnaires for an overall return rate of approximately 60 percent.

FINDINGS

Personal Characteristics

Age

Because of the very title of the program; i.e., "Young" Farmers, age of the enrollees was an appropriate question in analyzing the dropout versus retention rate of enrollees. Dropouts were generally older than those continuing in the program. The average age of the dropout was 40 while the average age of the re-enrollee was 35. Two-thirds of the dropouts were over the age of 35; whereas, over half (56.4%) of the

⁵The instructors mailed or hand delivered the questionnaires to the sampled farmers and encouraged them to complete the questionnaire but did not participate in the study itself nor were they present when the farmers filled out the questionnaires.

⁶Each category received slightly different questionnaires appropriate to their situation.

re-enrollees were 35 or younger. Results of this question are shown in Table 1.

Table I
AGE OF DROPOUTS AND RE-ENROLLEES

| Age | Dropouts | Re-enrollees |
|-------------|----------|--------------|
| | <u>%</u> | <u>%</u> |
| 25 or less | 9.3 | 16.9 |
| 26 - 30 | 13.3 | 23.7 |
| 31 - 35 | 10.7 | 15.9 |
| 36 - 40 | 20.6 | 13.8 |
| 41 - 45 | 14.7 | 16.4 |
| 46 and over | 30.7 | 12.3 |
| No response | 1.3 | 1.0 |
| Total | 100.0 | 100.0 |

Farming Experience

Results of the survey showed the age was directly correlated to farming experience. Since the dropouts generally were older than the continuing student, it was natural that they also had more farming experience. The dropouts had an average of 16 years of farming experience compared to 11.5 years for the continuing students. As shown in Table II, nearly twice as many of the dropouts had over 18 years experience as did the continuing students (40% to 21%). On the other end of the spectrum, more than twice as many of the continuing students had six or less years experience (33.8% to 15%). The dividing line between dropouts and re-enrollees was at the 12-13 year mark.⁷

⁷Beyond that point, there was a higher percentage of students dropping while below that point, a higher percentage were continuing.

Table II
YEARS OF FARMING EXPERIENCE

| Years | Dropouts | Re-enrollees |
|----------------|----------|--------------|
| | <u>N</u> | <u>N</u> |
| 1-3 years | 2 | 18 |
| 4-6 years | 10 | 48 |
| 7-9 years | 7 | 28 |
| 10-12 years | 4 | 27 |
| 13-15 years | 10 | 21 |
| 16-18 years | 5 | 8 |
| Over 18 years | 30 | 41 |
| No response | 1 | 3 |
| Does not apply | 6 | 1 |
| Total | 75 | 195 |

Present Occupation

Nearly all (95.6%) of the persons surveyed were farming at the time of the survey. Eighty-eight percent of the dropouts were farming compared to 98.5 percent of the continuing students.

Farm Ownership

Three-fourths of the continuing students and two-thirds of the dropouts own part or all of the land they are presently operating. Approximately 10 percent of each group were on a partnership basis with the farm owner. Three percent of the combined group were hired men while nearly 2 percent of this group were farm managers. Seven percent of this combined group were renters.

Farm Size⁸

Farms operated by the dropouts generally were larger than those operated by continuing students. The average size of the "dropout farms" was 365 acres compared to 224 acres for the "continuing farms". Thirty-six percent of the dropouts and 25.6 percent of the re-enrollees operated farms over 300 acres. When combining the groups, the most frequently checked response (32.1%) was in the 200-300 acre range as shown in Table III.

Table III
SIZE OF FARM OPERATED

| Acres | Combined Groups | Dropouts | Re- enrollees |
|-------------|--------------------|----------|------------------|
| | % | % | % |
| 49 or less | 0.4 | 1.3 | 0.0 |
| 50 - 99 | 1.9 | 0.0 | 2.6 |
| 100 - 149 | 15.2 | 8.0 | 17.9 |
| 150 - 199 | 17.4 | 16.0 | 17.9 |
| 200 - 300 | 32.1 | 28.1 | 34.0 |
| 301 - 499 | 18.9 | 21.3 | 17.9 |
| 500 or more | 9.6 | 14.7 | 7.7 |
| No response | 4.5 | 10.6 | 2.0 |
| Total | 100.0 | 100.0 | 100.0 |

Major Farm Enterprise

As may be expected, dairy ranked far above beef, sheep, swine, poultry, as the major farm enterprise for both groups.

⁸Total average farmed rented as well as owned acreage.

As shown in Table IV, more dropouts considered beef and swine to be their major enterprise than did the re-enrollees. Ironically, no one indicated "sheep" but two indicated poultry. (one dropout and one re-enrollee)

Table IV
MAJOR FARM ENTERPRISES

| Enterprises | Dropouts | Re-enrollees |
|---|-----------|--------------|
| | <u>N</u> | <u>N</u> |
| Dairy | 55 | 173 |
| Swine | 1 | 6 |
| Beef | 6 | 5 |
| Sheep | 0 | 0 |
| Poultry | 1 | 1 |
| Crops (oats, hay, corn, etc.) | 2 | 3 |
| Horticulture (sweet corn, tomatoes) | 3 | 3 |
| Other | 0 | 3 |
| No response | 7 | 1 |
| Total | <u>75</u> | <u>195</u> |

Employment Situation

The question of whether the Young Farmer was employed in full-time farming as opposed to working some of the time off the farm was posed as being possibly related to retention or dropping out of the program. Nearly 88 percent of the continuing students were engaged in farming full time while over 73 percent of the dropouts worked only on the farm. Twelve percent of the dropouts worked more than 50 days per year off the farm compared to only 2.5 percent of the re-enrollees. Data pertaining to this variable is summarized in Table V.

Table V
EMPLOYMENT STATUS OF RESPONDENTS

| Employment Status | Combined Group | Dropouts | Re- enrollees |
|--|-------------------|--------------|------------------|
| | <u>%</u> | <u>%</u> | <u>%</u> |
| Working full time on the farm | 83.2 | 73.4 | 87.3 |
| Working less than 25 days/year off the farm | 5.6 | 5.3 | 5.6 |
| Working 25-49 days/ year off the farm | 1.9 | 0.0 | 2.6 |
| Working 50-100 days/ year off the farm | 2.6 | 6.7 | 1.0 |
| Working more than 100 days/year off the farm | 2.6 | 5.3 | 1.5 |
| No response or not applicable | 4.1 | 9.3 | 2.0 |
| Total | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> |

Net Worth

It was found that the dropouts tended to have more net worth than did the re-enrollees. As shown in Table VI, nearly half of the dropouts had a net worth over \$60,000 compared to nearly a third of the re enrollees in this category. The average net worth of the dropout respondent was approximately \$50,000 compared to \$45,000 for the continuing student.

Table VI
NET WORTH

| Net Worth | Combined Group | | Re- enrollees |
|----------------------|-------------------|-------|------------------|
| | % | | % |
| Less than \$15,000 | 8.5 | 6.7 | 9.2 |
| \$15,000 to \$30,000 | 19.3 | 18.7 | 19.5 |
| \$30,000 to \$45,000 | 14.8 | 6.7 | 17.9 |
| \$45,000 to \$60,000 | 13.0 | 5.3 | 15.9 |
| Over \$60,000 | 37.3 | 49.3 | 32.9 |
| No response | 4.1 | 4.0 | 4.1 |
| Does not apply | 3.0 | 9.3 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 |

Education

Although there wasn't any significant difference in education background between the dropouts and re-enrollees, it is a matter of interest to note that the dropouts tended to have more college education than did the continuing students. For example, approximately 11 percent of the dropouts had some college and 4 percent were college graduates. On the other hand, approximately 7 percent of the re-enrollees had some college and one-half of 1 percent were college graduates.

Approximately 50 percent of each group completed a four-year vocational agriculture program in high school (51.4% for re-enrollees and 46.7% for dropouts). More dropout students (29.3%) than continuing students (20.5%) didn't have high school vocational agriculture.

Older respondents in both groups had a tendency to have less education than did the younger respondents.

Table VII
EDUCATIONAL BACKGROUND
(Highest Grade Completed)

| Educational Level | Dropouts | Re-enrollees |
|--------------------|----------|--------------|
| | <u>%</u> | <u>%</u> |
| 8th grade or less | 9.3 | 9.2 |
| 9th-11th grade | 9.3 | 9.7 |
| High school | | |
| graduate | 53.4 | 55.9 |
| U. W. Short Course | 8.0 | 10.3 |
| 1 or 2 years of | | |
| vocational school | 5.3 | 6.2 |
| Some college | 10.7 | 7.2 |
| College graduate | 4.0 | 0.5 |
| Other | 0.0 | 1.0 |
| Total | 100.0 | 100.0 |

Satisfaction With In-Class Instruction

Reasons for Enrolling

When asked for the single reason they initially enrolled (before participating), it was found that the dropouts had a greater tendency to enroll for the purpose of getting information; whereas, continuing students enrolled for the purpose of developing problem-solving abilities, (decision-making processes in farm management) as shown in Table VIII.

In relating age to the two major reasons for enrolling, four-fifths of the dropouts who enrolled "to get information" were 35 years of age or older; whereas, only half of the continuing students who enrolled for this purpose were over 35. The opposite situation existed for those enrolling to "develop their problem-solving abilities".

Table VIII
REASON FOR ENROLLING IN THE YOUNG FARMER CLASSES

| Reason for Enrolling | Dropouts | Re - enrollees |
|--|----------|-------------------|
| | <u>%</u> | <u>%</u> |
| Wanted to obtain information about my farming problems | 42.6 | 26.2 |
| Wanted to develop ability to solve my farming problems | 34.7 | 47.6 |
| Was encouraged by the instructor to attend | 16.0 | 16.4 |
| Was encouraged by a friend to attend | 4.0 | 6.2 |
| Other reasons | 2.7 | 3.6 |
| Total | 100.0 | 100.0 |

Perception of Program Objectives After Enrolling

There was very little difference between the dropouts and the re-enrollees when asked what they believed to have been the major objective of the Young Farmer classes after having attended these classes for at least one year. The most popular objective, according to frequency indicated by both groups (53%), was "help Young Farmers to develop their problem-solving ability so that they can solve their present and future farming problems". Next, approximately 28 percent for both groups, was the response "to provide Young Farmers with an opportunity to exchange ideas about the problems they are encountering as they begin farming." Last, with approximately 18 percent of responses from both groups, was "provide Young Farmers with information about their farming problems."

The greatest difference (6.8%) was on the last response ("provide information") in favor of the dropouts while the other two responses ("develop problem solving" and "exchange ideas") were slightly weighted toward the re-enrollees (5.1% and 1.0%, respectively). The results of this question are summarized in Table IX.

Table IX
YOUNG FARMER PERCEPTION OF PROGRAM OBJECTIVES
AFTER ENROLLING

| Perceived Program Objectives | Dropouts | Re- enrollees |
|--|----------|------------------|
| | <u>%</u> | <u>%</u> |
| Provide information about their farming problems. | 22.7 | 15.9 |
| Help to develop the problem-solving ability to solve their present and future farming problems. | 49.3 | 54.4 |
| Provide an opportunity to exchange ideas about the problems they are encountering as they begin farming. | 26.7 | 27.7 |
| Other | 1.3 | 1.0 |
| No Response | 0.0 | 1.0 |
| Total | 100.0 | 100.0 |

In correlating the data relating the Young Farmer's reasons for enrolling initially compared to his major program

objectives a year later, it was shown that more than one-half of the dropouts and one-third of the continuing students who initially enrolled to "get information" later believed the major objective of the program was to "develop their problem-solving ability".

The majority of those initially enrolled "to increase their problem-solving ability" also perceived this to be their major objective after being in the program for at least a year.

After one year of participation in the program, the dropouts initially encouraged by their instructors to enroll, had a tendency to think the major objective was to "provide opportunity to exchange ideas". Likewise, re-enrollees initially enrolling for this reason, were more likely to perceive the program's major objective as being "to develop problem-solving abilities".

Meeting Needs of Students

Both groups were in agreement that the program met their needs to some extent as shown in Table X. One and one-half percent of both groups said it didn't meet their needs at all! Three-fourths of the re-enrollees compared to two-thirds of the dropouts indicated that most or all of their needs were being met indicating that re-enrollees have a more positive attitude toward this question than do the dropouts.

Table X

DID YOUNG FARMER PROGRAM MEET NEEDS OF STUDENTS ENROLLED?

| Degree to which needs were met | Dropouts | Re- enrollees |
|--|--------------|------------------|
| | <u>%</u> | <u>%</u> |
| Did not meet my needs at all. | 1.3 | 1.5 |
| Met some of my educa- tional needs. | 34.7 | 22.6 |
| Met most of my educa- tional needs. | 46.7 | 52.8 |
| Met (all) my educa- tional needs. | 17.3 | 22.6 |
| No response | 0.0 | 0.5 |
| Total | <u>100.0</u> | <u>100.0</u> |

Instructional Facilities

The classroom facility itself can be a factor in the success or failure of adult classes. Both groups agreed that the facilities (classroom, laboratory and other facilities) used in the Young Farmer Program were adequate to very adequate (over 80% of both groups made this evaluation). However, the dropouts were doubly critical of the facilities than the re-enrollees. Nearly one-fifth of the dropouts classified their facilities as partially or completely inadequate compared to only one-tenth of the re-enrollees responding in this manner.

Distance to Classroom Location⁹

Closely related to the adequacy of the facilities, is the distance centers are located from the students' home farms. Instructors try to follow the maxim of choosing the classroom location which is the most convenient for the students.

The average distance the dropouts traveled was 7.2 miles compared to 6.4 miles for the re-enrollees although the range for both groups was less than four miles to over 20 miles (less than 9.0% traveled beyond 12 miles).

Nearly 91 percent of the dropouts and 96 percent of the re-enrollees said this distance was not too far. In fact, nearly three-fourths of both groups indicated that they would travel farther if they had to. For example, the dropouts said they would travel an average maximum distance of 12.8 miles while the continuing students indicated they would travel an average maximum of 13.5 miles. When comparing the latter mileage figures with those actually traveled, the dropouts would drive an average of 5.6 miles farther compared to an average of 7.1 miles farther for the re-enrollees.

Both the actual miles driven and the maximum the students would drive are given in Table XI.

⁹ Miles Young Farmer students travel from their home to the class location ("center").

Table XI
TRAVEL TO YOUNG FARMER CLASSES

| Distance (miles) | Combined Groups | | Re-enrollees | |
|---------------------|-----------------|----------|--------------|----------|
| | Act. * | Max.** | Act.* | Max.** |
| | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> |
| 4 or less | 32.0 | 5.3 | 31.3 | 3.1 |
| 5 - 8 | 34.8 | 12.0 | 43.1 | 9.2 |
| 9 - 12 | 21.3 | 29.5 | 17.9 | 39.5 |
| 13 - 16 | 4.0 | 16.0 | 4.1 | 21.5 |
| 17 - 20 | 5.3 | 17.3 | 2.6 | 13.3 |
| 20 or more | 1.3 | 5.3 | 0.5 | 6.7 |
| No response | 0.0 | 13.3 | 0.0 | 6.7 |
| Other | 1.3 | 1.3 | 0.5 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

*Actual
**Maximum

Time, Frequency and Duration of Classes

When the farmers surveyed were asked what time of day (when) they would prefer for the classes, nearly 92 percent indicated evenings (95.9% of the re-enrollees but only 81.3% of the dropouts). Afternoons were preferred by 17.3 percent of the dropouts but only 2.6 percent of the re-enrollees. The dropouts and re-enrollees were in unanimous accord on the choice of mornings--not a single respondent in the survey indicated this time!

When asked how often (frequency) the Young Farmer classes should meet, nearly 50 percent of both groups preferred "weekly or every other week during the 'slack season' of farm work and monthly during the other months." Another 20 percent of each group preferred classes on a "monthly" basis throughout

the year. The remaining 30 percent were divided between "weekly" or "every two weeks throughout the year". Results of this question are summarized in Table XII.

Table XII
PREFERRED FREQUENCY¹⁰ OF CLASSES

| Frequency Preferences | Combined Groups | Dropouts | Re-enrollees |
|---|-----------------|----------|--------------|
| | <u>%</u> | <u>%</u> | <u>%</u> |
| Weekly | 11.5 | 14.7 | 10.3 |
| Every two weeks | 14.4 | 16.0 | 13.8 |
| Monthly | 22.6 | 20.0 | 23.6 |
| Every two weeks in slack season and monthly in other months | 27.1 | 22.7 | 28.8 |
| Every week in slack season and monthly in other months | 22.2 | 25.3 | 21.0 |
| No response | 2.2 | 1.3 | 2.5 |
| Total | 100.0 | 100.0 | 100.0 |

As to length of classes,¹¹ more than three-fourths of the dropouts (76%) and re-enrollees (82.6%) expressed an overwhelming preference for two-hour sessions.

The other choices, in order, were for three-hour sessions (13.3% by dropouts and 6.2% by the re-enrollees) and one-hour class sessions (6.2% by re-enrollees and 5.3% by dropouts).

¹⁰How often classes should meet during the year.

¹¹Hours for each individual instructional session (one "sitting").

Instructor's Teaching Ability

Certainly the instructor is a key element in the success or failure of the Young Farmer Program and weighs heavily in the student's decision to terminate or continue participation in this program.

Therefore, a series of questions were asked relative to the instructor's technical competence, ability to clearly present the information, choice of teaching methods and class organization.

The respondent's general impression of the instructor's teaching ability showed significant differences between the dropouts and re-enrollees. The re-enrollees rated their instructors considerably higher than did the dropouts as shown in Table XIII.

Table XIII
IMPRESSIONS OF INSTRUCTOR'S TEACHING ABILITY

| Ratings | Combined Groups | Dropouts | Re- enrollees |
|-------------|--------------------|----------|------------------|
| | <u>%</u> | <u>%</u> | <u>%</u> |
| Poor | 1.1 | 4.0 | 0.0 |
| Adequate | 13.0 | 18.7 | 10.8 |
| Good | 44.5 | 54.6 | 40.5 |
| Excellent | 40.7 | 22.7 | 47.7 |
| No response | 0.7 | 0.0 | 1.0 |
| Total | 100.0 | 100.0 | 100.0 |

Two factors used in the study to check on the respondent's evaluation of the instructors were the student's opinion of his instructor's understanding of the most up-to-date technological

changes in production agriculture; also, his ability to provide the most relevant aspects of the material presented. Over 80 percent¹² of both groups endorsed their instructors in both areas by answering "yes" to the question.

In correlating age and educational attainment with these two factors, the older respondents rated the instructors higher than did the younger ones while the more education the respondent had, the lower he rated the instructors. These relationships were stronger for the dropouts than for the re-enrollees.

Another factor analyzed in the study was the student's opinion of the instructor's ability to organize content. The question asked was, "In your opinion, could you have better understood the content of the classes if it had been organized in a different manner?" The response to the question showed a significant difference between the two groups. Twice as many dropouts as re-enrollees (17.3% to 8.7%) indicated that they could have better understood the content if it had been organized in a different manner. Again, the older respondents of both groups tended to be more satisfied with the organization of the course content than did the younger members.

Balance Between Theory and Practice

A major concern of all instructors, and vocational education instructors in particular, is that their instructional

¹²The actual figures were 92.3 percent for the re-enrollees and 81.3 percent for the dropouts indicating that the re-enrollees had an even higher (11% margin) degree of endorsement than did the dropouts.

emphasis be properly balanced between theory and practice. Therefore, this question was posed to the persons in the study. As shown in Table XIV, the response indicated that more than 90 percent of the continuing students and 80 percent of the dropouts thought their instructors provided an adequate balance.

Table XIV
INSTRUCTIONAL BALANCE BETWEEN THEORY AND PRACTICE
(Respondent's Opinions of Instructors)

| Opinions | Dropouts | Re-enrollees |
|---|----------|--------------|
| | <u>%</u> | <u>%</u> |
| He was too theoretical. He told us why something should be done but not how it can be done. | 9.3 | 1.5 |
| He provided an adequate balance between theory and practice. He told us why something should be done and also how it can be accomplished. | 80.0 | 91.3 |
| He didn't provide enough theory. He only told us how to do something, not why we should do it a certain way. | 2.7 | 2.1 |
| No response. | 8.0 | 5.1 |
| Total | 100.0 | 100.0 |

Besides evaluating the content aspects along with the instructor's organizational ability, the instructor's ability to select and properly use a variety of teaching methods is usually a key factor in a student's evaluation of the instructor's teaching ability.

Consequently, the farmers in the survey were asked to rate their instructor's use of nine different teaching methods¹³ in terms of four categories:

1. Did not use
2. Poor
3. Fair
4. Good

To compare the evaluations made by the dropouts and re-enrollees for each of the nine teaching methods, a weighted mean score was computed from the responses for each method by each group through assigning values to each response ("1" for a "poor" rating, "2" for a "fair" rating and "3" for a "good" rating). The number of responses in each category were multiplied by the value assigned to that category; the totals for the three categories were added and then divided by the total number of responses to these categories.

A ranking was given to each method for the dropouts and the re-enrollees as well as the combined groups according to the weighted mean scores and included in Table XV.

An analysis of Table XV shows that there was considerable agreement between the dropouts and continuing students regarding their satisfaction with the instructor's teaching methods. For example, both groups rated "discussion" highest of the nine methods while "models, specimens and charts" received the lowest rating. They also agreed on the use of "guest speakers"--rating this method about in the middle.

¹³Lecture; discussion; demonstration; committee or group work; educational films; filmstrips or slides; overhead transparencies; models; specimens or charts; guest speakers; and other.

Table XV
RESPONDENTS' IMPRESSIONS OF THEIR INSTRUCTOR'S USE OF
VARIOUS TEACHING METHODS

| Methods | Dropouts | | Re-enrollees | |
|----------------------------|----------|------|--------------|------|
| | WMS* | RANK | WMS* | RANK |
| Discussion | 2.7 | 1(T) | 2.8 | 1 |
| Film Strips/Slides | 2.7 | 1(T) | 2.7 | 2(T) |
| Lecture | 2.6 | 3(T) | 2.7 | 2(T) |
| Educational Films | 2.6 | 3(T) | 2.6 | 4(T) |
| Guest Speakers | 2.6 | 3(T) | 2.6 | 4(T) |
| Overhead Transparencies | 2.6 | 3(T) | 2.6 | 4(T) |
| Demonstrations | 2.5 | 7 | 2.6 | 4(T) |
| Committees or Groups | 2.4 | 8(T) | 2.6 | 4(T) |
| Models, Specimens & Charts | 2.4 | 8(T) | 2.4 | 9 |

*Weighted Mean Score¹⁴
T -- Tie

The greatest discrepancy, although minor, was the use of "committees or groups." The continuing students rated this method higher (2.6 to 2.4 WMS) than the dropouts.

A surprising side observation of the answers to this question was a relatively high percentage of respondents who indicated that their instructors did not use teaching methods which were rated high by students of other instructors. For example, about one-fifth of both groups indicated that their instructors didn't use the group or committee work method. Guest speakers weren't used by approximately 15 percent, overhead transparencies not used by 12 percent and educational films not

¹⁴WMS (Weighted Mean Score) for combined groups is total computed for dropouts and re-enrollees on each method analyzed. Ranking for combined groups made on the basis of these totals.

used by approximately 6 percent of the instructors according to this survey. Less than one-half of 1 percent didn't use the discussion method.

Content Areas Which Should Receive Emphasis

Young Farmer Program instructors try to design their curriculums so that all the subject (content) areas are included that the students want and need in their classes. Thus, ten content areas were identified which might be taught in the Young Farmer Program. They were: Income tax, farm records, soils and fertilizers, crop production, feeds and feeding, animal breeding, farm buildings, farm power, weed control and farm insurance. The students receiving the questionnaire were asked to indicate to what extent each of these areas should be emphasized by rating them "uncertain", "none", "some" or "much".

As in the "teaching methods" question, a weighted mean score was calculated for each content area and a ranking made of each for the dropouts and the re-enrollees. Results are indicated in Table XVI.

An analysis of data in Table XVI shows no significant differences between the dropouts and re-enrollees regarding the emphasis on content areas in the curriculum. Both groups rated "feeds and feeding" as the area that should receive the most emphasis and "farm insurance" the least. Other areas getting high-emphasis ratings were "soils and fertilizers", "crop production" and "farm records". The content area receiving the greatest discrepancy was "farm records", with the continuing

students rating it higher than the dropouts. Dropouts tended to rate "crop production", "feeds and feeding" and "farm buildings" slightly higher than did the re-enrollees.

Table XVI
IMPORTANCE OF VARIOUS CONTENT AREAS IN CURRICULUM

| Content Areas | Dropouts | | Re-enrollees | |
|---------------------|----------|------|--------------|------|
| | WMS* | RANK | WMS* | RANK |
| Feeds & Feeding | 2.7 | 1 | 2.6 | 1(T) |
| Soils & Fertilizers | 2.6 | 2(T) | 2.6 | 1(T) |
| Farm Records | 2.6 | 2(T) | 2.5 | 4 |
| Crop Production | 2.5 | 4 | 2.6 | 1(T) |
| Income Tax | 2.4 | 5(T) | 2.4 | 5(T) |
| Animal Breeding | 2.4 | 5(T) | 2.4 | 5(T) |
| Weed Control | 2.4 | 5(T) | 2.4 | 5(T) |
| Farm Buildings | 2.3 | 8 | 2.1 | 8(T) |
| Farm Power | 2.1 | 9 | 2.1 | 8(T) |
| Farm Insurance | 2.0 | 10 | 2.0 | 10 |

*Weighted Mean Score¹⁵
T -- Tie

Satisfaction With On-Farm Instruction - Relative Importance

Individual on-the-farm instruction is an integral part of the total program. A mild controversy among the instructors is the relative importance the student places on this phase of instruction as compared to the classroom portion of the program. Consequently, the researchers asked this question of the persons participating in this study.

¹⁵WMS (Weighted Mean Score) for combined groups is total computed for dropouts and re-enrollees on each content area analyzed. Ranking for combined groups was made on the basis of these totals.

One-third of the respondents in each group stated that on-farm instruction was the most important part of the total program while approximately one-fifth of each group indicated that on-farm instruction was next in importance to the classroom phase of the program. However, 42.2 percent of both groups felt that both phases of the program were of equal importance. Only 4.5 percent of both groups stated that on-farm instruction was not very important or generally a waste of time.

More dropouts than re-enrollees (8% compared to 3.1%) indicated that on-farm instruction was not important or a waste of time.

Hours of On-Farm Instruction

Respondents also indicated the number of hours per year they received on-farm instruction as shown in Table XVII. The answers ranged from "none" to over 40 hours. The re-enrollees received more (13.5 hours average) than did the dropouts (12.8 hours average). Slightly over 24 percent of the re-enrollees received more than 20 hours per year compared to 17.3 percent of the dropouts. On the other extreme, 6.7 percent of the dropouts received "none" while 2.6 percent of the re-enrollees responded in this fashion.

Table XVII

TOTAL HOURS OF ON-FARM INSTRUCTION GIVEN PER YEAR

| Hours/Year | Dropouts | Re-enrollees |
|-------------------|----------|--------------|
| | <u>%</u> | <u>%</u> |
| None | 6.7 | 2.6 |
| Less than 5 hours | 14.7 | 14.9 |
| 5 - 9 hours | 16.0 | 20.0 |
| 10 - 14 hours | 26.6 | 20.5 |
| 15 - 19 hours | 18.7 | 17.9 |
| 20 - 24 hours | 8.0 | 15.9 |
| 25 - 29 hours | 1.3 | 3.1 |
| 30 - 34 hours | 4.0 | 1.5 |
| 35 - 39 hours | 4.0 | 3.6 |
| Total | 100.0 | 100.0 |

Frequency and Duration of On-Farm Instructional Visits

When asked how "often" instructional visits were made by the Young Farmer instructor, the pattern was nearly the same for the dropouts as for the re-enrollees. A followup question asking how often farm visits should be made also indicated close agreement between groups.

Approximately one-half of the respondents in both groups indicated that they were visited and that they should be visited once a month. "Whenever requested" was the next response most often indicated by both groups. Over 25 percent of the respondents in both groups stated that visits were made "whenever requested"; whereas, 32 percent of them indicated visits should be made "whenever requested".

Sixty-four percent of the continuing students and 57 percent of the dropouts were satisfied with the frequency of their instructor's farm visits.

The dropouts and re-enrollees also generally agreed on how long the average farm visit should last. Nearly 90 percent of all respondents indicated that the "typical" farm visit should be from one to two hours in length.¹⁶ Less than 6 percent thought they should be under one hour while less than 4 percent thought they should be three hours. No person in the entire group indicated four-hour farm visits as being desirable.

Timing of Farm Visits (when scheduled)

Since the young farmers and their instructors are generally on a very tight schedule, instructors have found it desirable, if not necessary, to schedule in advance their farm visits. Consequently, this factor was analyzed in the study as reported in Table XVIII.

Table XVIII
INSTRUCTOR SCHEDULING OF FARM VISITS

| Scheduling of Visits | Combined Groups | Dropouts | Re - enrollees |
|---|--------------------|--------------|-------------------|
| | <u>%</u> | <u>%</u> | <u>%</u> |
| About 1 month before visit | 12.2 | 17.3 | 10.3 |
| About 2 weeks before visit | 16.3 | 16.0 | 16.4 |
| About 1 week before visit | 41.5 | 42.8 | 40.9 |
| The day before the visit | 6.3 | 5.3 | 6.7 |
| The visit not scheduled. (instructor stopped in without prior notice) | 18.5 | 12.0 | 21.0 |
| Instructor never came out to the farm | 3.0 | 5.3 | 2.1 |
| No response and other | 2.2 | 1.3 | 2.6 |
| Total | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> |

¹⁶ 34.8 percent indicated one hour, 25.6 percent indicated 1½ hours and 27.4 percent indicated two hours.

As data in Table XVIII indicates, more than 40 percent of both groups said their instructors scheduled their visits one week before the visit. However, it was surprising to note that 21 percent of the re-enrollees and 12 percent of the dropouts said that there was no prior scheduling of the farm visit. Also, 28.5 percent of all respondents (one-third of the dropouts and 26.7% of the re-enrollees) had their visits scheduled two weeks to a month before the visit actually occurred. Approximately 6 percent of both groups said the visit was scheduled a day before the visit and only 3 percent of both groups said the instructor never came out to the farm at all (over 5% of the dropouts and 2.1% of the re-enrollees).

Understanding and Identifying Purpose of Farm Visits

Farmers participating in the study were asked if they understood the purpose of the farm visit before the instructor arrived on the farm; and if he and the instructor had determined the subject (or problem area) to be covered during the next farm visit.

More than two-thirds of the respondents in both groups reported that they "always" or "usually" understood the purpose beforehand. Only 5 percent said they "never" understood the purpose prior to the visit. Of this 5 percent, four out of five re-enrollees and three out of four dropouts stated their instructors dropped in without prior notice or never came out to the farms at all.

Approximately one-half of the dropouts and one-third of the re-enrollees said they and their instructors usually or always determined the subject (or problem area) to be covered at the next visit before any farm visit was over. Nearly 12 percent of the re-enrollees and 16 percent of the dropouts stated that they never determined the subject or problem prior to the next visit.

In correlating the two variables, it was generally found that if the instructor and student didn't determine the subject or problem during the previous farm visit, the student wasn't aware of the purpose of the visit before the instructor arrived at the farm. Farmers involved in the planning process also tended to rate their instructor's teaching abilities higher.

Reasons for Dropping Out of the Program

Those persons who had dropped out were asked in their questionnaires why they dropped out. As revealed in Table XIX, they tended to drop out for personal reasons rather than because they were greatly dissatisfied with the program. The reason given most often (by over half of the respondents) was because of deep involvement in community organizations and free time needed for recreation. These were the reasons expressed more often by the older respondents. Farmers younger in age had a greater tendency to be dissatisfied with the program itself than older farmers.

Table XIX

REASONS FOR DROPPING OUT OF THE YOUNG FARMER PROGRAM BY AGE

| Reasons | Age | |
|--|------------|----------|
| | 35 or Less | Over 35 |
| | <u>N</u> | <u>N</u> |
| I was too involved in such things as church, farm organizations, and community projects. | 4 | 16 |
| What little free time I had needed to be spent in recreation and social activities. | 8 | 8 |
| I reduced my farming operation. | 3 | 7 |
| Class interfered with farm work. | 5 | 4 |
| Too far to drive. | 3 | 3 |
| Instructor did not help me on farm visits. | 5 | 1 |
| Total | 28 | 39 |

Other reasons mentioned by a few respondents included "material covered not generally related to my farming operation," "material presented in class not very practical," "most of the material could have been obtained from Extension Agent or Company Sales Representatives," "number of years required to complete the program was too long" and "I was required to go to classes when I really wanted on-the-farm instruction."

Personality conflicts between the instructor and the students wasn't a factor in a single case.

Conclusions and Implications

The major purpose of this study was to determine why some students in the Young Farmer Program dropped out before completing the five-year curriculum while others stayed in the program until successful completion. Representatives of both groups, drawn by random sampling method, were sent questionnaires asking them to respond to a series of questions that would indicate reasons for either dropping out or continuing in the program.

In many instances, there were significant differences between the dropouts and the continuing students while in many other instances, there was no discernible difference between the two groups.

Major differences between the groups showed that the dropouts generally were older, had considerably more farming experience, owned more of the land they operated, had more net worth and had slightly more overall education¹⁷ than the re-enrollees.

The dropouts also had a tendency to rate their instructor's teaching ability slightly lower, believed the major objective of the program was more to acquire information about their farming operation rather than develop "problem solving" ability and felt that the program was less relevant to their needs than did the re-enrollees (continuing students).

¹⁷But had taken less vocational agriculture in high school.

Conversely, the re-enrollees were considerably younger, were becoming established in farming rather than already being firmly established (had less net worth, less years of farming experience and less apt to be owners but more likely a tenant, etc.), had less overall education but more high school vocational agriculture and tended to enroll in order to develop their problem-solving ability rather than receive information.

There was generally no significant difference between the two groups in rating their instructor's technological competence¹⁸ and use of teaching methods.¹⁹ Both groups also agreed that their instructors provided an adequate balance between theory and practice. They also agreed that content areas that should receive the greatest emphasis were feeds and feeding, soils and fertilizers, farm records and crop production while farm insurance, farm power and farm buildings should receive the least emphasis.

As to timing and length of classes, they agreed that classes should be held evenings for a period of two hours every week, or every two weeks during the slack season and monthly during the other months, or on a monthly basis throughout the year. Apparently, the instructor will have to set up the timing of his classes according to the wishes of his own groups as the three options received about equal preferences in the study.

¹⁸Over 80 percent of both groups indicated that their instructors were up to date technologically and provided students with the most relevant aspects of the subjects they were teaching.

¹⁹Both groups indicated that their instructors made good use of teaching methods although re-enrollees indicated that their instructors made a better selection of methods than did the dropouts.

Although the instructors tended to visit the continuing students for individual on-farm instructional purposes more often than the dropouts, both groups of students agreed that visits should be made on a monthly basis or whenever the students requested their instructor's assistance. General agreement also was shown in preferred length of these visits-- one to two hours. Both groups responded that most of the farm visits were scheduled between one and two weeks prior to the visit itself although one-eighth (dropouts) to one-fifth (re-enrollees) indicated that their instructors stopped in without prior notice. Two-thirds of both groups "always" or "usually" understood the purpose of the visit beforehand. A large majority of the respondents felt that on-farm instruction was equal or greater in importance than the classroom phase of the program.

In questioning their overall assessment of the Young Farmer Program, the continuing students indicated that the program was more relevant to their needs than did the dropouts.

Perhaps, the most revealing result of the whole study was the fact that dropouts, when asked why they terminated their voluntary participation in the program, did so not because they were dissatisfied with the program itself or had a low opinion of the instructor, etc. Rather, they mostly dropped out for purely personal reasons; such as, being too involved with civic, religious, social and farm organizations and/or overriding family obligations. This points out the fact that as a person becomes older and more established in farming, he becomes more

involved in activities; such as, farm organizations, church and community projects compared to a younger person still becoming established in farming. This program as originally established by the State Board of Vocational, Technical and Adult Education was for the person becoming established in farming, not for the man who is already established. The data supports the fact that it is this group (the persons who are becoming established) that tended to re-enroll while the other group (the already established farmer) that tended to drop out.

For the most part, the Young Farmer Program has been successful so far. For example, the clients (students) of the program seem to be satisfied with the instructional program including the facilities, instructor's ability, the accomplishments of the on-farm phase as well as the classroom phase of the program, administration of the program (arrangements for classes and farm visits), balance between theory and practice, selection of instructional topics and other facets of the entire program.

The reason they drop is related more to the instructor's enrolling those persons who technically do not fit the definition of a Young Farmer (i.e., becoming established in farming) than to any other factor.

Therefore, the researchers conclude that the dropout rate can be reduced by continuous self-evaluation by the instructors of their program to determine how well their students' needs are being met and then making appropriate adjustments and improvements based on the results of their evaluations.

Apparently, the needs of the "young" farmer (becoming established) most nearly fit this program; and therefore, this group is the one that should be encouraged to enroll and where recruitment emphasis should be placed.

However, the older, more established farmer who is much more apt to drop out certainly should not be ignored. VTAE agricultural administrators should set up short-term, single-unit classes; such as, adult farmer extension classes and/or special seminars to serve the specific needs of this very important group of farmers.